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**FACT SHEET STATEMENT OF BASIS
UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES)
GENERAL PERMIT FOR COAL MINING OPERATIONS
MINOR INDUSTRIAL FACILITIES RENEWAL
UPDES PERMIT No. UTG040000**

The State of Utah in compliance with the *Utah Water Quality Act, Title 19-5 Utah Code Annotated ("UCA") 1953, as amended, the "Act"*, will issue a general permit for coal mining operations in Utah.

APPROPRIATENESS OF THE GENERAL PERMIT

Utah Administrative Code (UAC) Section R317-8-2.5 authorizes the issuance of general permits to categories of point sources within the same geographical area, which involve similar types of operations, discharge the same types of wastes, and require similar effluent limitations and pollution control measures. There are currently twelve coal mining facilities that have applied for coverage under this general permit renewal. All of these twelve facilities are located in Carbon and Emery Counties.

DESCRIPTION OF DISCHARGES

This general permit shall apply only to discharges of mine water, ground water, treated wastewater, and/or storm water from coal mining operations located in Utah. Coal mining operations, either new or existing in Utah, which include or will include in part or in whole, alkaline mine water drainage, storm water runoff from coal preparation plant and associated areas, active mining areas, and post mining areas. The discharge of coal preparation plant process water is prohibited under this general permit. The discharge data for each of the twelve facilities has been evaluated. Many of these twelve facilities either do not discharge on a regular basis (if at all), or are generally able to meet the discharge requirements. Based on Utah Administrative Code UAC 19-5-108 a permit cannot be issued unless the applicant/permittee can meet all applicable requirements of this Chapter, including the conditions of any permit granted by the Board.

NOTICE OF INTENT FOR COVERAGE UNDER THE COAL MINING GENERAL PERMIT

Any facility, including those which presently have an individual UPDES permit, which desires coverage under the general permit for coal mining and meets the descriptions above, may be issued coverage by submitting a Notice of Intent (NOI). The Environmental Protection Agency Application (EPA form 3510-1) and the other NOI requirements can be obtained from:

Division of Water Quality
195 North 1950 West
P.O. Box 144870
Salt Lake City, Utah 84114-4870
(801) 536-4300
www.waterquality.utah.gov

The following outline for submitting a NOI is taken from *Part I.B.* of the general permit:

Any facility which desires coverage under this general permit for coal mining and meets the requirements of Part I.A. may be issued general permit coverage by submitting a Notice of Intent (NOI) to Division of Water Quality. This can be a guide for renewal of the permit in the future, by completing the form and sending to the address above. The NOI shall include:

1. A completed Environmental Protection Agency Application (EPA Form 3510-1) or equivalent information. Only EPA form 3510-1 is required, no other EPA forms are required.
2. Location and identification number (such as 001, 002, etc.) of each existing discharge and/or proposed discharge point(s). This includes the latitude and longitude and the name of the receiving water(s).
3. A description of the source of the wastewater for each discharge point.
4. A description of the treatment given or proposed for the wastewater at each discharge point and if necessary a justification of why no treatment is required.
5. Flow characteristics for each discharge point such as whether flow is or will be continuous or intermittent and indicate projected and/or actual average and maximum flows in gallons per day (GPD), or million gallons per day (MGD).
6. Data for each discharge point for the following parameters:
 - a. Biochemical demand (BOD₅).
 - b. Chemical oxygen demand (COD).
 - c. Total organic carbon (TOC).
 - d. Total suspended solids (TSS).
 - e. Flow.
 - f. Ammonia (as N).
 - g. Oil and grease.
 - h. Temperature.
 - i. pH
 - j. Total dissolved solids (TDS).
 - k. Total iron and metals, cyanide, phenols located in *Table III of UAC R317-8-3.13*.
 - l. For discharge(s) of mine water or mine water and mine water mixed with surface runoff, provide results of previous whole effluent toxicity (WET) testing or complete at least one WET test using two species and a full dilution series (five dilutions plus a control). Sediment pond discharges which have only surface runoff do not require WET tests.
 - m. Date and time of sampling for each parameter.

- n. Date and time of analysis for each parameter.
- o. Utah certified laboratory which has completed the analysis for each parameter.

For each discharge point the presence or absence of any toxic and/or priority pollutants as listed in *Table II, UAC R317-8-3.13*. If no data is available, indicate why the data is not available. The Executive Secretary may waive the reporting requirements for any of these pollutants and parameters if the applicant submits a request for such a waiver before or when the NOI is submitted, which demonstrates that information adequate to support issuance of the permit can be obtained through less stringent reporting requirements. Additional information or clarification of information submitted in the NOI may be requested by the Director at any time.

Any permittee holding a general UPDES permit may request to be excluded from coverage of the general permit by applying for an individual permit. If an individual permit is issued, the applicability of the general permit is automatically terminated on the effective date of the individual permit. In addition, the Executive Secretary may require any permittee authorized by a general permit to apply for and obtain an individual UPDES permit. Cases where an individual permit may be required include those listed in *UAC R317-8-2.5(2)(c)1*.

BASIS FOR EFFLUENT LIMITATIONS

In accordance with regulations promulgated in *40 Code of Federal Regulations (CFR) Part 122.44* and in *UAC R317-8-4.2*, effluent limitations are derived from technology-based effluent limitations guidelines, Utah Secondary Treatment Standards (*UAC R317-1-3.2*) or Utah Water Quality Standards (*UAC R317-2*). A waste load analysis was completed and is included as Appendix I of this FSSOB. In cases where multiple limits have been developed, those that are more stringent apply. In some cases (such as for TSS) multiple limits have been used. In cases where no limits are applicable, Best Professional Judgment (BPJ) may be used. "Best Professional Judgment" refers to a discretionary, best professional decision made by the permit writer based upon precedent, prevailing regulatory standards or other relevant information.

The total suspended solids (TSS) limitations were determined using State of Utah secondary treatment standards as contained in *UAC R317-1-3.2 B*. These standards require that the arithmetic mean shall not exceed 25 mg/L during any 30-day period or 35 mg/L during any 7-day period. The daily maximum value of 70 mg/L was taken from *40 CFR 434 Subpart D*, which is entitled *Alkaline Mine Drainage*.

The pH is limited to a minimum of 6.5 and a maximum of 9.0 standard units by State secondary treatment standards as contained in *UAC R317-1-3.2D*.

There shall be no visible sheen or oil and grease present. If sheen is visually observed or there is another reason to believe oil or grease is present in the discharge, then a sample for oil and grease is required to be taken. This sample shall be less than or equal to 10 mg/L. This requirement for oil and grease is based upon Best Professional Judgment.

The iron limitation is based upon the State Water Quality Standard of 1.0 mg/L for dissolved iron (*UAC R317-2 Table 2.14.2*) and will be included in the permit as 1.0 mg/L as total iron, and shall apply to each of the

discharge points. Data from Utah coal mine discharges indicate that the permitted facilities should be able to continue complying with this limitation because either they usually do not discharge on a regular basis, or the discharge has typically been less than 1.0 mg/L.

If a facility discharges into the Colorado River Basin, TDS mass loading is limited according to policies established by the Colorado River Basin Salinity Control Forum (Forum), as authorized in *UAC R317-2-4* to further control salinity in the Utah portion of the Colorado River Basin. On February 28, 1977 the Forum produced the "*Policy for Implementation of Colorado River Salinity Standards through the NPDES Permit Program*" (Policy), with the most current subsequent triennial revision dated October 2011. Based on Forum Policy, provisions can be made to remove TDS by treatment, salinity off-set projects, or whatever mechanism(s) the permittee can develop to account for any TDS loading in excess of the permit requirement. These provisions are usually incorporated in individual permits. The TDS loading required by the salinity forum is one ton per day as a sum from all discharge points, unless the concentration of TDS is 500 mg/L or less. If the concentration of TDS is less than 500 mg/L no loading limit applies. Therefore, a loading limit of one ton per day from all discharge points will be included in the permit unless the permittee can demonstrate that the concentration at all discharge points does not exceed 500 mg/L. If one ton per day cannot be achieved and the permittee cannot meet 500 mg/L or less at all of its discharge points, then the permittee will be required to pursue an individual permit.

Based on *UAC R317-2-14, Table 2.14*, the concentration of TDS in water used for agricultural purposes shall not exceed 1200 mg/L, unless there is a designated site specific standard for TDS which has been incorporated into the State Water Quality Standards. A reasonable potential analysis for TDS concentration was completed for all of the mines presently covered under the general coal permit. A majority of coal mines covered under the general permit has not discharged over the last five years and it is anticipated will not discharge over the next five year permit period. Of those facilities that discharged (3 out of 13) only one (Alton Coal) will be required to obtain an individual permit instead of being covered under this general coal permit renewal.

USEPA made an impairment determination for total dissolved solids for Kanab Creek-2 Assessment Unit which includes Lower Robinson Creek and Sink Valley which are the two receiving waters for discharge from Alton Coal. Any discharge from Alton Coal in exceedance of 1200 mg/L may cause or contribute to the violation of a TDS water quality standard, which is the reason Alton Coal is being required to obtain an individual permit. All of the permitted coal mines have to monitor for TDS concentration to determine loading for TDS. All mines covered under this permit will be required to report TDS concentration on their DMR report. As with the previous permit, no specific concentration for TDS will be included as a limit in this renewal permit.

For discharges composed of surface water or mine water commingled with surface water, *40 CFR Part 434.63* allows alternate effluent limits to be applied when discharges result from specific runoff events, detailed below and in the permit. The permittee has the burden of proof that the described runoff events occurred.

- i. For runoff events (rainfall or snowmelt) less than or equal to a 10-year 24-hour precipitation event, settleable solids shall be substituted for TSS and shall be limited to 0.5 milliliters per liter (ml/L). All other effluent limitations must be achieved concurrently, as described in the permit.
- ii. Any discharge or increase in the volume of a discharge caused by precipitation within any 24 hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) may comply with the following limitation instead of the otherwise applicable limitations:

Pollutant or pollutant property	Effluent limitations
pH	6.5-9.0 at all times.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The effluent limitations and monitoring requirements shall be completed as outlined below. Effluent self-monitoring requirements are based on BPJ. Reports shall be made via NetDMR or on Discharge Monitoring Report (DMR) forms and are due 28 days after the end of the monthly monitoring period.

Effluent Characteristics	Effluent Limitations d/				Monitoring Requirements	
	30 Day Average	7 Day Average	Daily Minimum	Daily Maximum	Sample Frequency	Sample Type
Flow, ¹ MGD e/	1.0	² NA	NA	Report	Monthly	Measured
TSS, mg/L	25	35	NA	70	Monthly	Grab f/
Total Iron, mg/L	NA	NA	NA	1.00	Monthly	Grab f/
Oil & Grease, mg/L a/	NA	NA	NA	10	Monthly	Visual
Total Dissolved Solids, mg/L	NA	NA	NA	Report	Monthly	Grab f/
Total Dissolved Solids, tons/day b/	NA	NA	NA	1.0	Monthly	Grab f/
pH, standard units	NA	NA	6.5	9.0	Monthly	Grab
Sanitary Waste c/	NA	NA	NA	None	Monthly	Visual
Oil and Grease, floating solids, visible foam, a/	NA	NA	NA	None	Monthly	Visual

¹ MGD: million gallons per day

² NA: not applicable

If the waters of the State into which the permittee is discharging are designated as non-attainment for any parameter, the permittee may be required to monitor for a specific parameter of concern as indicated in Part I.E.6 of the permit. Alternatively, as a result of this designation, the permittee may be required to obtain an individual permit based on *UAC R317-8-2.5(2)(c)1*.

- a/ A visual inspection for oil and grease, floating solids, and visible foam shall be performed monthly. There shall be no sheen, floating solids, or visible foam in other than trace amounts. If sheen is observed, a grab sample of the effluent shall be collected immediately thereafter and oil and grease shall not exceed 10 mg/L in concentration.
- b/ The permittee cannot discharge more than one ton per day of TDS as a sum from all discharge points. If the permittee can achieve a 500 mg/l thirty day average or less at each outfall there shall be no tonnage limit applicable. If the permittee cannot meet either of the TDS limits mentioned above in this paragraph, the permittee may be required to obtain an individual permit.
- c/ There shall be no discharge of sanitary waste and visual observations shall be performed at least monthly to verify the no such discharges occur.

- d/ See Definitions, *Part V of the permit* for definition of terms.
- e/ For intermittent discharge, the duration of the discharge shall also be reported
- f/ These samples may also be a composite sample.

WASTE LOAD ANALYSIS AND ANTIDEGRADATION REVIEW

Effluent limitations are also derived using a waste load analysis (WLA), which is appended to this statement of basis as ADDENDUM. The WLA incorporates Secondary Treatment Standards, Water Quality Standards, Antidegradation Reviews (ADR), as appropriate and designated uses into a water quality model that projects the effects of discharge concentrations on receiving water quality. Effluent limitations are those that the model demonstrates are sufficient to meet State water quality standards in the receiving waters. During this UPDES permit development, a WLA and ADR I were performed. Effluent limits contained in the WLA were incorporated into the permit. This included a reasonable potential analysis based on the best professional judgment of the permit writer. An ADR Level I review was performed and concluded that an ADR Level II review was not required. The potential discharges were evaluated and determined not to cause a violation of State Water Quality Standards in downstream receiving waters.

STORM WATER REQUIREMENTS

The storm water requirements are based on the UPDES Multi-Sector General Permit (MSGP) for Storm Water Discharges for Industrial Activity, General Permit No. UTR000000. All sections of the MSGP that pertain to discharges from wastewater treatment plants have been included and sections which are redundant or do not pertain have been deleted.

The permit requires the preparation and implementation of a storm water pollution prevention plan for all areas within the confines of the plant. Required elements of this plan are:

- 1) Development of a pollution prevention team,
- 2) Development of drainage maps and material stockpiles,
- 3) An inventory of exposed material,
- 4) Spill reporting and response procedures,
- 5) A preventative maintenance program,
- 6) Employee training,
- 7) Certification that storm water discharges are not mixed with non-storm water discharges,
- 8) Compliance site evaluations and potential pollutant source identification, and
- 9) Visual examinations of storm water discharges.

This plan is required to be maintained on-site to reflect current site conditions and made available for review upon request and/or inspections.

PRETREATMENT REQUIREMENTS

Those facilities covered under the general permit do not discharge process wastewater to a sanitary sewer system. Any process wastewater that these facilities may discharge to the sanitary sewer, either as a direct discharge or as a hauled waste, is subject to federal, state, and local pretreatment regulations. Pursuant to section 307 of the Clean Water Act, the permittee shall comply with all applicable federal general pretreatment regulations promulgated,

found in 40 CFR 403, the state's pretreatment requirements found in UAC R317-8-8, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the waste.

BIOMONITORING REQUIREMENTS

As part of a nationwide effort to control toxics, biomonitoring requirements are being included in all major permits and in minor permits for facilities where effluent toxicity is an existing or potential concern. Authorization for requiring effluent biomonitoring is provided for in UAC R317-8-4.2 and R317-8-5.3. *The Whole Effluent Toxicity (WET) Control Guidance Document*, February 15, 1991, outlines guidance to be used by Utah Division of Water Quality staff and by permittees for implementation of WET control through the UPDES discharge permit program.

The coal mining operations covered under this general permit are categorized as minor industrial facilities, from which the discharges of mine water and storm water runoff is neither considered to be, nor likely to be toxic. Therefore, biomonitoring of the effluent will not be required. A toxicity reopener provision will be included in the permit so that WET testing and WET limitation requirements can be incorporated at any time if determined to be appropriate in the future.

SIGNIFICANT CHANGES FROM PREVIOUS PERMIT

A flow limit of 1.0 MGD was added for when discharges do occur. This flow limit is the largest average flow expected at any of the coal mines applying for coverage under the General Permit for Coal Mining.

PERMIT DURATION

As stated in UAC R317-8-5.1(1), UPDES permit shall be effective for a fixed term not to exceed five years.

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